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REMARKS

Reconsideration is respectfully requested.

35 USC §102

The Examiner has rejected Claims 1-2, 4-5, 8, 10-13, 40-41 under 35 USC §102, as allegedly being anticipated by Caron et al. (US 6,350,387).

The courts have ruled that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Also, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicant respectfully submits that the Examiner has failed to establish a prima facie case of anticipation under 35 USC §102 since the Caron reference does not teach each and every element of Applicant's claims. Specifically, regarding Applicant's Claim 1, the Caron reference does not teach Applicant's limitation, as currently amended, "wherein said at least one rigid layer comprises at least one first structural weakness at at least one first selected location." The Examiner states that "weakness structural is located at element 14" in Caron. Applicant respectfully submits that element 14 in Caron is not a rigid layer with a structural weakness. Rather, element 14 is a flexible layer with a complete absence of any rigid portion whatsoever at the location of element 14. Although there are rigid portions on the left and rigid portions on the right, there is no rigid portion that connects the left and right portions. Since there is no rigid layer at the location of element 14, there is nothing rigid at the location of element 14 which can be weakened. The rigid portion itself must be weakened. Complete absence of a rigid portion does not satisfy the limitation. Therefore Applicant's claims do not read on the Caron reference. Thus, it is respectfully submitted that rejection of Claim 1 (and all Claims dependent thereon) should be withdrawn.

Further, regarding Applicant's Claim 1, the Caron reference does not teach Applicant's limitation, as currently amended, "wherein said at least one first structural weakness is adapted to facilitate breaking said at least one rigid layer at such at least one first selected location into at least two rigid pieces to provide a at least one first flexible connection formed by said at least one first flexible layer between such rigid pieces." Applicant respectfully submits that nothing in the Caron reference teaches breaking a weakened rigid portion. Applicant clearly teaches breaking a weakened rigid portion. In the Caron reference the rigid portions on either side of the flex portion 14 are never rigidly connected. Rather, the rigid portions on either side of the flex portion 14 are separately and independently built-up. Therefore Applicant's claims do not read on the Caron reference. Thus, it is respectfully submitted that rejection of Claim 1 (and all Claims dependent thereon) should be withdrawn.

Regarding Applicant's Claim 13, Caron reference does not teach Applicant's limitation, as currently amended, "wherein said at least one substantially rigid layer comprises at least one structural weakness at at least one selected location to facilitate bending said at least one rigid layer at such at least one selected location to provide at least one flexible connection." Applicant respectfully submits that nothing in the Caron reference teaches bending a weakened rigid portion. Applicant clearly teaches bending a weakened rigid portion. In the Caron reference the rigid portions on either side of the flex portion 14 are never rigidly connected. Rather, the rigid portions on either side of the flex portion 14 are separately and independently built-up. Therefore Applicant's claims do not read on the Caron reference. Thus, it is respectfully submitted that rejection of Claim 13 (and all Claims dependent thereon) should be withdrawn.

Regarding Applicant's Claim 2: Caron reference does not teach Applicant's limitation, "wherein such structural weakness comprises at least one score." In Caron, the complete absence of a rigid portion at the location of flex portion 14 does not qualify as a "score." Applicant's specification clearly shows and teaches that a score is something that only partially penetrates a rigid layer. Thus, it is respectfully submitted that rejection of Claim 2 (and all Claims dependent thereon) should be withdrawn.

Regarding Applicant's Claim 40: Applicant has amended Claim 40 to even further distinguish Applicant's invention from the prior art. Caron does not teach Applicant's limitation, "wherein said structural weakness means comprises at least one score that partially penetrates said rigidity means." Thus, it is respectfully submitted that rejection of Claim 40 should be withdrawn.

Applicant believes that all Claims, as amended, are now allowable with respect to 35 USC §102 and respectfully request that all such rejections be withdrawn.

35 USC §103

The Examiner has rejected Claims 3, 6-7, 9, and 14-17 under 35 USC §103, as allegedly being unpatentable over Caron et al. (US 6,350,387) in view of Warner et al. (US 6,665,170).

Applicant repeats as though fully set forth here the above arguments regarding the Caron reference.

The Federal Circuit has enunciated several guidelines in making a §103 obviousness determination. A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051 (CCPA 1976)). (Emphasis added). For the Examiner to establish a prima facie case of obviousness, the Examiner must contend that the teachings from the prior art *itself* or that knowledge generally available to one of ordinary skill in the art would appear to suggest the claimed subject matter to a person of ordinary skill in the art.

Applicant respectfully submits that the Examiner has not used the proper standard for combining references to make obvious rejections. The Examiner has stated "Caron and Warner et al. are analogous art because they are from the same field of endeavor to make circuit board. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to make score of Caron et al. to have score at top and bottom for the benefit of easy breaking" [sic]. The Examiner's logic is apparently that ANY and ALL combinations between circuit board

references are obvious. This is an improper and inappropriate assertion. In order to establish a prima facie obviousness rejection, the Examiner must meet a much higher standard than merely finding two references that are allegedly in the same broadly defined field of endeavor.

It is well settled that to support an obviousness rejection, the prior art must contain some teaching or suggestion to make the modifications suggested by the Examiner. In this regard, the Federal Circuit has stated that "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." (emphasis added) *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992.) Applicant respectfully submits that no such suggestion exists in the Caron reference or the Warner reference to so modify or combine the elements to result in the Applicant's claimed invention as suggested by the Examiner. Applicant submits that the combination of the Caron and Warner references as suggested by the Examiner is NOT obvious. Thus, it is respectfully submitted that rejection of Claims 3, 6-7, 9, and 14-17 (and all Claims dependent thereon) should be withdrawn.

Further, former Chief Judge Markey of the Federal Circuit has stated, "virtually all inventions are 'combinations', and ... every invention is formed of 'old elements' ... Only God works from nothing. Man must work with the elements." H.T. Markey, *Why Not the Statute?*, 65 J. Pat. Off. Soc'y 331, 333-34 (1983). Applicants respectfully point out that the Warner reference .

The Federal Circuit has stated: "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fritch*, 972 F.2d 1260, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992.)

The Examiner's apparent position that combining the references as suggested by the Examiner is "obvious" is a mere *ipse dixit* of the Examiner; and if the Examiner persists with this position, Applicant respectfully requests that the Examiner submit an Affidavit to that effect.

Alternatively, Applicant requests evidence to support the Examiner's position. The burden of establishing a prima facie rejection is on the Examiner, and the Examiner has not met that burden.

Further, "circuit boards" is FAR too broad a categorization for the purposes of determining whether references are analogous art. The "Light Emitting Diode Illumination System" cited by the examiner has nothing to do with "Rigid-flex" boards. Applicant will concede that Caron is analogous art since Applicant's invention and the Caron reference both relate to "rigid flex" boards. However, the Warner reference is not analogous art since it is not within the field of endeavor of "rigid flex" circuit boards. Additionally, the Warner invention involves a different field of endeavor since the Warner reference has a different purpose and is used in different conditions than Applicant's invention. The Warner reference is not reasonably pertinent to the problem with which the inventor was concerned because a person having ordinary skill in the art would not necessarily have expected to solve the problem of constructing a rigid-flex circuit board by considering a reference dealing with "light emitting diodes," especially when the element relied on by the examiner is used for a different purpose (completely detaching a rigid board). Thus, it is respectfully submitted that rejection of Claims 3, 6-7, 9, and 14-17 (and all Claims dependent thereon) should be withdrawn.

Applicant submits that even if Warner were analogous art (which it isn't), it would still not be obvious to one of ordinary skill in the art how to combine the references. Even if one of ordinary skill in the art had the Warner and Caron references in front of her, it would not be obvious to her to combine the references as suggested by the examiner to arrive at Applicant's invention as claimed. The only way to arrive at Applicant's invention given one of ordinary skill in the art and the two cited references would be to inject impermissible hindsight. Thus, it is respectfully submitted that rejection of Claims 3, 6-7, 9, and 14-17 (and all Claims dependent thereon) should be withdrawn.

Regarding claim 6, 7, 16, 17: Applicant repeats as though fully set forth here the above arguments. Additionally, Applicant respectfully submits that rejection of these claims is

improper. It is not relevant whether laser scores, or mechanical scores, etc., by themselves ("in a vacuum") are well known in the art. What is novel and inventive in the present case is a new application of these elements in a non-obvious way to solve a new problem. For example: just because metal is "well known" in the mechanical arts doesn't mean that everything that is assembled of metal is rendered obvious. New assemblies of old "well-known" things in new, useful, non-obvious ways are patentable. Would putting a bunch of steel rods, sheet metal and bolts together to form the very first working fusion reactor be obvious just because the parts by themselves were well known? No. If so, nothing would be patentable, since everything is an assembly of old things and old technologies in some way. Thus, it is respectfully submitted that rejection of Claims 6, 7, 16, 17 (and all Claims dependent thereon) should be withdrawn.

Regarding claim 9, 14, 15: Applicant repeats as though fully set forth here the above arguments. Additionally, Applicant respectfully disagrees with the Examiner's unsubstantiated assertion that "It is old and well known for one of ordinary skill in the art to use different type of materials for layer for the benefit of meeting the costs and conductivity. [sic] Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to use different type of material for layer for the benefit of meeting the costs and conductivity" [sic]. Once again, the Examiner's opinion of "obvious" is a mere *ipse dixit* of the Examiner; and if the Examiner persists with this position, Applicant respectfully requests that the Examiner submit an Affidavit to that effect. Applicant requests evidence to support the Examiner's position. The burden of establishing a prima facie rejection is on the Examiner, and the Examiner has not met that burden. These materials have never been assembled in this novel way before to solve this problem. Assembling these "well known" materials in new ways is patentable. Further, Applicant respectfully disagrees that it would have been obvious to use these materials "for the benefit of meeting the costs and conductivity." Thus, it is respectfully submitted that rejection of Claims 9, 14, 15 (and all Claims dependent thereon) should be withdrawn.

Applicant believes that all Claims, as amended, are allowable with respect to 35 USC §103, and respectfully request that all such rejections be withdrawn.

Applicant respectfully points out, that according to the first two paragraphs of MPEP 706, "The examiner should never overlook the importance of his or her role in allowing claims which properly define the invention."

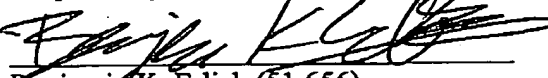
For the reasons given above, and after careful review of all the cited references, Applicant respectfully submits that none of the cited references nor any combination of the cited references will result in Applicant's claimed invention in the present Claims, as amended. But even if any such combination might arguably result in such claimed invention, it is submitted that such combination would be non-obvious and patentable.

A petition and fee for extension of time under 37 C.F.R. § 1.136(a) have been submitted under separate cover. If there are any fees incurred by this Amendment Letter, please deduct them from our Deposit Account NO. 50-1887.

Applicant respectfully requests (not as a matter of form but as a special request in this case) that the Examiner, after having an opportunity to review this Office Action Response, grant a telephonic interview to Applicant's undersigned agent in order to discuss Applicant's response to the Examiner's first Office Action (before the Examiner prepares a second office action), to attempt to reach mutual understanding and clarify any outstanding issues. Applicant respectfully requests that the Examiner call Applicant's undersigned agent at 602-263-9200 to schedule a telephonic interview at least two business days in advance to allow the Applicant's undersigned agent time to prepare and schedule the interview. For telephonic scheduling purposes, Applicant's agent is located in Arizona, in the Mountain Standard Time zone.

Date: September 7, 2006

Respectfully submitted,

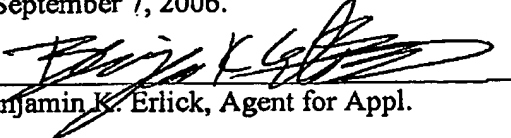


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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being transmitted, via facsimile, to the Patent and Trademark Office fax number (571)-273-8300 on September 7, 2006.

Date September 7, 2006

Signature: 

Benjamin K. Erlick, Agent for Appl.